

Remarks

Claims 23-27, 31, 33, 36, 37, 39-43, and 45-54 were pending in the subject application. Applicant gratefully acknowledges the Examiner's withdrawal of the rejections under 35 USC §112, second paragraph, 35 USC §102(b), and §103(a) (over Ohtake). By this Amendment, claims 23, 39, 42, 43, 45, and 47 have been amended. Support for the amendments can be found throughout the subject specification and in the claims as originally filed. Entry and consideration of the amendments presented herein is respectfully requested. Accordingly, claims 23-27, 31, 33, 36, 37, 39-43, and 45-54 are currently before the Examiner for consideration. Favorable consideration of the pending claims is respectfully requested.

As an initial matter, Applicants respectfully request reconsideration and withdrawal of the finality of the Office Action dated April 16, 2008. In the instant Office Action, a new ground of rejection has been applied against all pending claims, including claim 36 which was previously indicated by the Examiner as being allowable. In Applicants Amendment dated December 18, 2007, claims 23, 39, 42, and 45 were amended to recite that the monitor or cardiac sensor is releasably attachable to a single ECG electrode. Applicants respectfully assert that the amendments to the claims submitted in the Amendment did not necessitate the new grounds of rejection (*i.e.*, the rejection under 35 USC §103(a)) presented in the instant Office Action. The withdrawal of allowability of claim 36 in view of the "newly discovered" Bach *et al.* reference was not necessitated by Applicants' amendments. Accordingly, Applicants respectfully assert that the finality of the Office Action dated April 16, 2008 is premature. Reconsideration and withdrawal of the finality of the rejection is respectfully requested.

Claims 23-27, 31, 33, 36, 37, 39-43 and 45-54 are rejected under 35 USC §103(a) as being obvious over Bach *et al.* (GB 2 207 579) in view of Kristbjarnarson (U.S. Patent No. 6,049,730). The Bach *et al.* reference is cited as teaching an ECG monitor consisting of a transmitter with two compartments that clip onto a standard ECG electrode. The Kristbjarnarson patent is cited as teaching a heart monitor comprising a cardiac sensor and an accelerometer that can measure in any of three dimensions. Applicants respectfully traverse this ground of rejection.

Applicants respectfully assert that the cited references, taken alone or in combination, do not teach or suggest Applicants' claimed invention. Independent claims 23, 39, 42 and 45 are directed to the monitor being releasably attached to and supported by, a single ECG electrode. The Examiner has rejected the claims on the grounds that the Bach *et al.* reference discloses all of the claimed features except for a processor. The Examiner also asserts that the Kristbjarnarson patent discloses a monitor with processor, and that it would have been obvious to combine the Bach *et al.* and Kristbjarnarson references to arrive at the claimed invention.

By this Amendment, independent claims 23, 39, 42, 43, 45, and 47 have been amended to make it clear that the support means is releasably attached to only a single electrocardiogram electrode. The Bach *et al.* and Kristbjarnarson references do not teach or suggest this element. Support for this amendment can be found on page 2, lines 3-4, of the subject specification. The Bach *et al.* reference discloses a system in which the monitor is formed of two compartments **1, 2** connected by a lead **3**. The compartments are supported on two separate ECG electrodes. The Kristbjarnarson patent discloses a monitor that is attached to various electrodes but the monitor is not supported on an electrode. Thus, neither the Bach *et al.* reference nor the Kristbjarnarson patent teaches or suggests a support means releasably attached to a single ECG electrode.

Furthermore, neither the Bach *et al.* reference nor the Kristbjarnarson patent discloses that the monitor or support is releasably attached to an ECG electrode. Applicants respectfully assert that the Examiner acknowledges this when he states in the Office Action that it is "not clear from Bach *et al.* if the stud contact **5** allows for releasable attachment." The Examiner subsequently states that he considers the stud contact to be capable of being releasably attachable. However, the Examiner provides no basis for reaching this conclusion. Applicants respectfully submit that the Examiner is improperly reading elements into the disclosure of Bach *et al.* for which there is no disclosure or support. Thus, Applicants maintain neither of the cited references teach or suggest a monitor support releasably attached to an ECG electrode.

In addition, Applicants respectfully assert that at the time of the Applicants' invention, a person of ordinary skill in the art would not have combined the Bach *et al.* reference with the Kristbjarnarson patent. The Bach *et al.* reference sets out three disadvantages (see page 1 of Bach *et al.*) of current devices: 1) the presence of wires from the equipment to the patient; 2) high power

consumption; and 3) large physical dimensions of devices. It is stated that the Bach *et al.* invention sets out to improve and overcome these disadvantages. In view of this teaching, the person of ordinary skill in the art would not look to modify the device disclosed in the Bach *et al.* reference by including the recording equipment/processor disclosed in the Kristbjarnarson patent. The device disclosed in the Bach *et al.* reference is small, and lightweight and so can be mounted on ECG electrodes. By contrast, the recording equipment **12** in the Kristbjarnarson patent is worn over the user's shoulder using a shoulder strap and records **13** channels of ECG data for a period of 24 hours or more. This volume of data is required for vectorcardiography. The recording equipment/processor of the Kristbjarnarson patent is therefore necessarily bulky and would not be suitable for inclusion in a monitor supported on ECG electrodes, let alone on a single ECG electrode as in Applicants' claimed invention. Modifying the device disclosed in the Bach *et al.* reference with the teaching of the Kristbjarnarson patent is directly contrary to the teaching of the Bach *et al.* reference. Moreover, the Kristbjarnarson patent teaches the use of awkward wiring, a large monitor and high power consumption, all of which are disadvantages as recognized by the Bach *et al.* reference. Thus, the Bach *et al.* reference teaches away from making a combination with the Kristbjarnarson patent and an ordinarily skilled artisan would not look to or consider such a combination.

Moreover, in regard to independent claim 43, Applicants further note that the claim is directed to essentially the same features as claimed in claim 23, but also includes an accelerometer within the monitor housing, wherein the processor processes signals it receives from the accelerometer to generate activity data. The accelerometer in the Kristbjarnarson patent is used for calculating the posture of a patient. This is necessary for vectorcardiography. Vectorcardiography requires both posture measurement and multiple channels of data. The device in the Bach *et al.* reference is not suitable for vectorcardiography on its own, as it generates only a single channel of data. Multiple devices are used if multiple channels of data are required (see page 5, lines 12 to 15 of Bach *et al.*). Thus, if the device disclosed in the Bach *et al.* reference is not to be used for vectorcardiography, there would be no motivation provided by the Bach *et al.* reference or the Kristbjarnarson patent to modify the device disclosed in the Bach *et al.* reference to include an accelerometer. On the other hand, if the motivation to combine the teaching of the Bach *et al.*

reference with the Kristbjarnarson patent was to modify the device of Bach *et al.* for vectorcardiography, multiple monitors would be used and there would no teaching or motivation to include an accelerometer within the housing of a monitor. Instead, as taught by the Kristbjarnarson patent, a separate inclinometer would be used. Accordingly, Applicants respectfully submit that a person of ordinary skill would not be motivated to combine the teaching of the Bach *et al.* reference with the teaching of the Kristbjarnarson patent in the manner suggested by the Examiner, nor would the cited references have resulted in Applicants' invention as claimed. Clearly, neither the Bach *et al.* reference nor the Kristbjarnarson patent teaches or suggests the inclusion of an accelerometer within a monitor housing as recited in claim 43 of the subject application.

Applicants further note that independent claim 47 is directed to a monitor wherein the same contacts used for transferring data to and from the monitor and/or resetting and reprogramming the monitor and/or recharging a battery for powering the monitor are also used for coupling the monitor for ECG electrodes. The Examiner has indicated that he considers the stud connectors 5 and 6 of the Bach *et al.* device to be capable of attachment to an interface, separate from electrodes 4. However, it is clear from claim 47 that it is not simply that the contacts can be coupled to an external interface that is required, but also that the monitor allows those same contacts to be used for transferring data from and/or to the monitor, and/or for resetting and reprogramming the monitor, and/or recharging the battery for powering the monitor. The Bach *et al.* reference does not teach or suggest use of the same contacts for all of the above functions. The Bach *et al.* reference discloses passing only ECG or other sensed data signals to a monitor via studs 5, 6 and 14. There is no teaching or suggestion in either of the cited references of any other signals being sent to or from the monitor via the studs, nor is there any teaching or suggestion that the monitor is configured to allow it. Thus, all of the elements of claim 47 are not taught or suggested by the cited references.

As the Examiner is aware, in order to support a *prima facie* case of obviousness, a person of ordinary skill in the art must generally find both the suggestion of the claimed invention, and a reasonable expectation of success in making that invention, solely in light of the teachings of the prior art and from the general knowledge in the art. *In re Dow Chemical Co.*, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). One finds neither the suggestion, nor the reasonable expectation of success, of

Applicants' claimed invention in the cited references. Accordingly, reconsideration and withdrawal of the rejection under 35 USC §103(a) is respectfully requested.

It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicants' agreement with or acquiescence in the Examiner's position.

In view of the foregoing remarks and amendments to the claims, Applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account 19-0065.

Applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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